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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 904,747	07 13 2001	Jay E. Widman	002905.0110	3358

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EXAMINER

ESTRADA, ANGEL R

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 04/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/904,747

Applicant(s)

WIDMAN, JAY E.

Examiner

Angel R. Estrada

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilbane et al (US 4,640,978) in view of Gajajiva (US 4,060,264).

Regarding claim 1, Kilbane et al disclose an apparatus (see figure 1) for sealing a conduit (10) comprising: a housing (12) having an inner chamber and an outer surface (see figure 1) and a flexible membrane (20) disposed within the inner chamber of said housing (see figure 1) adjacent to said conduit (10); but Kilbane et al lack at least one free running hub disposed on, and mounted to, said housing adapted for coupling to at least one end of the conduit. Gajajiva discloses an apparatus for sealing a conduit (36) comprising a housing (10) and at least one at least one free running hub (12) disposed on, and mounted to, said housing (10) adapted for coupling to at least one end of the conduit (36 or see figure 1 and 2), said apparatus also includes a flexible membrane (14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to Kilbane's housing with at least one hub adapted to at least one end of the conduit as taught by Gajajiva to improve the sealing of the conduit by tightening the connections and prevent the passage of gases, vapors and flames.

Additionally, it is inherent that in order to use Gajajiva teaching on Kilbane the outer surface of the housing must have male threads (16, as taught by Gajajiva).

Regarding claim 2, Kilbane et al disclose an apparatus (see figure 1) for sealing a conduit (10) further comprising means (18) for purging any air, other gases or moisture, which may be trapped within the inner chamber of said housing.

Regarding claim 3, Kilbane et al disclose an apparatus (see figure 1) for sealing a conduit (10) wherein the purging means (18) comprises a threaded port (22) formed in the housing (12) and a threaded plug (18), which is adapted to mate with said threaded port (see figure 1).

Regarding claim 5, the modified Kilbane et al disclose the apparatus (see figure 1) for sealing a conduit (10), wherein the housing (12) is defined by a mid-section, which is substantially cylindrically shaped (see figure 1), and a free running hub (12 of Gajajiva) is disposed on, and mounted to, opposite end of the mid-section (as taught by Gajajiva); but the modified Kilbane lack a second hub disposed and mounted on a opposite end of the mid section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a second hubs to the other end of the housing, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 3 USPQ 8.

Regarding claim 6, Gajajiva discloses the free running hub (12) having a partially conical in shape (see figure 1) and have an inside surface, which has a first set female threads (26) formed thereon for mating with the ends of the conduit (36).

Regarding claim 7, Gajajiva discloses the free running hub (12) wherein the inside surface of the free running hubs (12) has a second set of female threads (24) formed thereon for mating with the ends of the cylindrically-shaped mid-section (see figure 2) and a shoulder adjacent to the second set of female threads (see figure 1).

Regarding claim 8, the modified Kilbane et al disclose the claimed invention except for the flexible membrane disposed on the inside surface of each of the free running hubs adjacent to the shoulder. Gajajiva teaches the hub (12) having a flexible membrane (14), said flexible membrane (14) is disposed on the inside surface of the free running hub (12) adjacent to the shoulder (see figure 2 or 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to disposed the flexible membrane on the inside surface of each of the free running hubs adjacent to the shoulder as taught by Gajajiva to provide a good hermetical seal to the conduit.

Regarding claim 9, Kilbane et al disclose the apparatus (see figure 1) for sealing a conduit (10) further comprising a polyurethane-based epoxy sealant compound (24) disposed within said inner chamber (see figure 1).

Regarding claim 10, Kilbane et al disclose the apparatus (see figure 1) for sealing a conduit (10), wherein the polyurethane-based epoxy sealant compound (24) comprises a polymer and a monomer (column 2 line 47-63).

Regarding claim 11, Kilbane et al disclose the apparatus (see figure 1) for sealing a conduit (10), wherein the housing (12) is formed of an aluminum alloy (see figure 1, notice the cross section hatching).

Regarding claim 12, the modified Kilbane discloses the claimed invention except for the flexible membrane is generally disk-shaped, formed of neoprene. Gajajiva discloses an apparatus for sealing a conduit (36) comprising a housing (10) and at least one free running hub (12) disposed on, and mounted to, said housing (10) adapted for coupling to at least one end of the conduit (36 or see figure 1 and 2), said apparatus also includes a generally disk shaped flexible membrane (14) formed of neoprene (see column 4 line 3-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to Killbane's sealing apparatus with a flexible membrane (14) having a generally disk shaped having at least one opening for accommodating one or more cables and formed of neoprene as taught by Gajajiva to improve the sealing of the conduit by providing an extra flexible member disposed on the tightening the connections to the prevent the passage of gases, vapors and flames.

Regarding claim 13, the modified Kilbane disclose a method of sealing a conduit (10) using the apparatus, comprising the steps of coupling said apparatus to at least one end of the conduit (see figure 1); threading any wires or cables (14) contained within said conduit (10) through said flexible membrane (20); and filling the inner chamber with a polyurethane-based epoxy sealant compound (24).

Regarding claim 14, the modified Kilbane discloses a method of sealing a conduit (10) using the apparatus, further comprising the step of releasing any air, other gases, or moisture, which may be trapped in the inner chamber (see figure 1) after it is filled with the epoxy sealant compound (24), through a purging means (18).

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kilbane et al (US 4,640,978) in view of Gajajiva (US 4,060,264) as applied in claim 2 and further in view of Celauro et al (US 6,075,204).

Regarding claim 4, the modified Celauro et al discloses the claimed invention except for the purging means being a spring-loaded ball-type valve. Celauro discloses an electronic enclosure having a purging means (160) comprising a spring-loaded ball-type valve (column 4 line 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Killbane's purging means with a spring-loaded ball-type valve as taught by Celauro et al to facilitate the movement of gases or vapor from the inside of the housing to the outside.

Conclusion

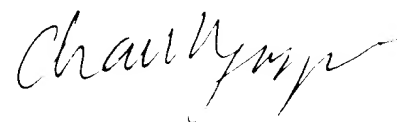
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hall (US 5,580,103), Zornow (US 5,393,104), Davlin (US 4,555,129), Basile et al (US 4,957,314), Vollmuth et al (US 4,592,574), Bawa et al (US 5,051,541) and Guibileo (US 4,571,452) disclose a conduit-coupling assembly. Larson (US 3,555,171), Bachle (US 4,169,967), Scahill et al (US 4,287,386), Hutchinson (US 4,301,325), Morrow et al (US 4,538,053) and Gandy (US 4,733,935) disclose an electrical conduit with sealing means. Cameron (US 5,560,655) discloses an electrical conduit with a valve. McCartney et al (US 6,175,487) disclose an electrical housing defining a inner chamber having a polyurethane based epoxy sealant compound disposed in said chamber.

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4. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (703) 305-0853. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-1341 for after final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



CHAU N. NGUYEN
PRIMARY EXAMINER

AE

March 28, 2002